CANADA

NATIONAL ENERGY BOARD
REASONS FOR DECISION

In the Matter of an Application under
Part IV of the National Energy Board Act

of

Trans-Northern Pipelines Inc.

May 1985

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Cat. No. NE 22-1/1985-20E
ISBN 0-662-14092-3

This report is published separately in both official languages.

Ce rapport est publié séparément dans les deux langues officielles.

Copies are available on request from:

Regulatory Support Office
National Energy Board
473 Albert Street
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Bureau du soutien de la réglementation
Office national de l'énergie
473, rue Albert
Ottawa (Canada)
K1A 0E5
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Printed in Canada

Imprimé au Canada

National Energy Board

IN THE MATTER OF the National Energy Board Act and the Regulations made thereunder; and

IN THE MATTER OF an application by Trans-Northern Pipelines Inc. (hereinafter called "Trans-Northern" "the Applicant" or "the Company") for an order under Section 51 of the National Energy Board Act for new tolls; filed with the Board under File No. 1762-T2-8.

HEARD in Ottawa, Ontario on 15, 16 and 17 April 1985.

BEFORE:

W.G. Stewart	Presiding Member
R.F. Brooks	Member
A.B. Gilmour	Member

APPEARANCES:

John H. Francis, Q.C.	Trans-Northern Pipelines Inc.
R.S. O'Brien, Q.C.	Air Canada, Canadian Pacific Air Lines Limited, Nordair Ltée-Nordair Ltd., Québecair, Wardair
A.R. O'Brien	Interprovincial Pipe Line Limited
D. Assh	National Energy Board

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Abbreviations and Definitions

Applicant/Company/ Trans-Northern	Trans-Northern Pipelines Inc.
Board/NEB	National Energy Board
DCF	Discounted Cash Flow
IRR	Investors' Required Rate of Return
m^3	Cubic Metre
m^3km	Cubic Metre Kilometre
1979 Decision	"National Energy Board Reasons for Decision in the matter of an Application by Trans-Northern Pipe Line Company under Part IV of the National Energy Board Act (Toll Application) November 1979"
1981 Decision	"National Energy Board Reasons for Decision in the matter of an Application by TNPL INC. under Part IV of the National Energy Board Act (Toll Application) December 1981"

Executive Summary

NOTE: This summary is provided solely for the convenience of the reader and does not constitute part of this Decision or reasons for it.

The major decisions of the Board with respect to the Trans-Northern toll application are summarized below.

Rate Base

The Board has decided that the balances of all relevant items comprising the Company's rate base should be computed on a 13-month average basis rather than the simple average basis generally employed in the application.

The time lag used as the basis for computing the Company's cash working capital allowance has been reduced by the Board from 28 to 16 days.

The Company's request to reflect in rate base certain unamortized amounts in respect of rate case expenses, debt issuance costs, a foreign exchange loss and a pension plan surplus has been approved by the Board.

The Board has decided to include the entire amount of the Company's projected 1985 Class "C" construction program in its allowed rate base.

Cost of Service Excluding Return

The 5 percent increase sought by the Company in respect of salaries and wages for the test year has been reduced by the Board to 4 percent. The Board has reduced to 4.5 percent the 5 percent rate employed by the Company in estimating test year inflation-related increases in respect of certain operating expenses.

Having noted the increase in product downgrading costs which occurred subsequent to the reversal of flow on the Applicant's system, the Board has found that the downgrading costs should be allocated to all shippers and has included the Company's test year estimate of these costs in the allowed cost of service.

The Board has decided that the corporate surtax announced by the Federal Minister of Finance subsequent to the conclusion of the public hearing into Trans-Northern's application should be reflected in its allowed cost of service. Prior to taking this decision, the Board advised all interested parties of its intention to take into account the surtax and solicited their comments in respect thereof. None of the parties involved submitted comments.

The Board has approved certain amounts applied for by the Company in respect of rate case expenses, debt issuance costs, a foreign exchange loss and a pension plan surplus for inclusion in the cost of service. The Board has also approved the amortization periods proposed by the Applicant in respect of these items with the exception that the pension plan surplus is to be amortized over a two rather than a three-year period.

Rate of Return

The Board has decided that the rate of return on rate base should be 14.46 percent, rather than the 14.97 percent applied for by the Company. This rate reflects the Board's decision to accept the use of the Company's actual projected test year capital structure expressed on a 13-month average basis, that is to say, 49.3 percent debt and 50.7 percent equity. It also reflects the Board's decision to accept the Company's applied-for actual debt cost rates and to reduce the 16.75 percent rate of return on equity sought by the Applicant to 15.75 percent.

Total Allowed Cost of Service

Giving effect to all of its decisions with respect to rate base, cost of service and rate of return matters, the Board has allowed a total cost of service of $24,113,348 compared to the $24,967,000 applied for by the Company.

Toll Design

The Board has accepted the revised throughput estimate of 8 825 000 m^3 submitted by the Company for use in the design of tolls. Also, the Board has approved the Applicant's proposal to change the existing method of allocating overhead expenses so as to prorate these among its cost centres on the basis of the total direct costs associated with each centre.

Chapter 1
The Application

By application dated 8 February 1985, Trans-Northern applied to the Board under Part IV of the National Energy Board Act for new tolls. The Company's proposed tolls were based on a 1985 test year and were designed to recover a total cost of service of just under $25 million which reflected, among other things, an overall rate of return of 14.97 percent on a rate base of $39 million. Trans-Northern's application was set down by Board Order RH-1-85 for a public hearing commencing in Ottawa on 15 April 1985. The hearing lasted three days, concluding on 17 April 1985.

Chapter 2
Rate Base

2.1 Method of Computing Rate Base

In its application, the Company calculated the test year average net transportation plant in service as a simple average of the opening and the closing balances thereof. This was in contrast to the 13-month average[1] used by Trans-Northern in computing various balances to be incorporated in rate base in respect of working capital.

During cross-examination, the Company indicated that it had no objection to the use of a 13-month average in computing net plant in service for the test year.

The Board is of the view that the use of a 13-month average represents a more precise and reliable method of computation and has therefore decided to employ it in computing all relevant rate base items.

2.2 Plant Additions to be Included in Rate Base

The Company's projected test year additions to plant, amounting to $1,835,000, comprised essentially all of its approved 1985 Class "C" construction program. During the hearing the Applicant was questioned on the probability of completing and placing in service in the test year the full amount of this construction in view of its completion record over the period 1979-1984. This five-year period indicated an average completion rate of about 80 percent.

The Company was of the view that the more recent years were the pertinent ones to consider and these indicated its record was very close to 100 percent. Specifically, the record for the years 1981 through 1984 showed completion rates of approximately 107, 85, 100 and 97 percent respectively. The Company stated that it was well aware of the concern over not completing the whole of the Class "C" applications approved by the Board and that, in recent years, it had put great effort into trying to complete all such projects.

1 The 13-month average is obtained by aggregating the opening balance for the test year and the balances at the end of each month and dividing the total by 13.

Based on the evidence presented in connection with this matter, the Board has decided to allow the entire amount of the forecast plant additions to be included in the test year rate base.

2.3 Working Capital

2.3.1 Cash Working Capital Allowance

The Company based the calculation of the cash component of its applied-for working capital allowance on an average 28-day lag in the timing of cash payments and the receipt of revenues. This 28-day lag was established at the Company's first toll hearing in 1979 and consisted of a lag time of 13 days coupled with a cushion or "provision for lumpiness" of 15 days in recognition of the fact that the lag time was computed on an average basis and that variations in the timing of receipts and payments would occur.

As its initial determination of this matter took place in 1979, based upon a lead-lag study related to the year 1977, the Board considered it opportune to review the continued appropriateness of the 28-day lag. In response to the Board's request, the Company conducted a new lead-lag study based on the year 1984. This study found the average net payment-receipt lag to be 8.43 days. In light of this result, the Company was asked to justify its use of the 28-day factor. The Board is of the opinion that the Company's response in this connection failed to provide evidence which would support this aspect of its application.

In final argument, an intervenor stated that a reduction of one-half of the number of days allowed would be in conformity with the results of the new study.

The Board accepts the results of the new lead-lag study and accordingly has decided to reduce the net lag days from the 13 originally allowed in its 1979 Decision to 8.5. In addition, the Board believes it is appropriate to reduce, in a similar way, the 15-day provision for lumpiness originally allowed in its 1979 Decision. The Board has therefore decided that the cash component of the Applicant's working capital

allowance is to be calculated on the basis of a total lag time of 16 days.

2.3.2 Inclusion in Working Capital of Certain Unamortized Balances re: Debt Issuance Costs; Rate Case Expenses; Foreign Exchange Loss; and Pension Plan Surplus

The Applicant has included the average unamortized balances of its rate case expenses, debt issuance expenses, foreign exchange loss and pension plan surplus in the calculation of working capital. The Company indicated that these items fall under the category of prepayments (or the converse in the case of the pension plan surplus) and that the proposed inclusion of these items is thus consistent with the Board's definition of working capital as expressed in its 1979 Decision.[1] In response to questions put during the hearing regarding its proposed treatment of these items, the Company stated that it viewed them as being equivalent to an investment in plant, in respect of which a return both of and on the amount invested would be allowed.

In final argument, an intervenor took the position that the unamortized balances should not be included in the working capital portion of rate base.

It is clear from the evidence presented that the Company has had to expend funds in respect of the costs incurred in relation to its rate case, debt issuance and foreign exchange loss. In the case of the pension plan surplus, the Company has received a cash refund. As discussed in Section 3.8 of this Decision, the Board has found it appropriate to include amounts related to each of these four items in the Applicant's cost of service.

Having regard to its finding that amounts related to these items may be properly amortized in Trans-Northern's cost of service and the fact that time will pass before this amortization process is completed, the Board considers the Applicant's request that it be allowed to earn a return on the various average unamortized balances to be reasonable.

However, because the items in question are distinguishable from those prepaid amounts normally included in working capital,[2] the Board has decided to remove them from working capital and instead include them in a separate category of rate base entitled Miscellaneous Deferred Items. The aggregate unamortized balance of these items approved by the Board for inclusion in the Applicant's rate base is calculated below.

1 "The Board views working capital as consisting of an allowance for cash working capital ... together with separate allowances for inventories and prepayments."

2 Insofar as they represent payments made in respect of goods or services which have already been received or rendered and because they are to be written off over periods in excess of one year.

Miscellaneous Deferred Items

	Per Application	Adjustments	Authorized by NEB
Unamortized Rate Case Expenses	$112,500	—	$112,500
Unamortized Debt Issuance Expenses	117,000	(16,253)[1]	100,747
Unamortized Foreign Exchange Loss	1,418,994	—	1,418,994
Unamortized Pension Plan Surplus	(338,461)	33,846[2]	(304,615)
Total	**$1,310,033**	**$17,593**	**$1,327,626**

1 Adjustment to reflect revised debt issuance expenses. See Section 3.8.2.

2 Adjustment to reflect Board decision to amortize surplus over two years rather than the applied-for three-year period. See Section 3.8.4.

2.3.3 *Computation of Allowed Working Capital*

Having regard to its decisions in respect of working capital matters, the Board has calculated the working capital allowance to be included in the Company's test year rate base as follows.

2.4 Accumulated Deferred Income Taxes

The average accumulated deferred income tax balance to be deducted in computing the allowed rate base is $8,095,458. This balance is shown in Appendix V and was calculated using the 13-month aver-

	Per Application	Adjustments	Authorized by NEB
Total Operating Expenses Exclusive of Depreciation, Normalized Income Taxes and Surtax	$13,460,000	$ (384,980)[1]	$13,075,020
Less:			
Municipal Property Taxes	1,320,000	—	1,320,000
Insurance Expense	100,000	(11,100)[2]	88,900
Rental Expense	775,000	—	775,000
	11,265,000	**(373,880)**	**10,891,120**
Add: Income Taxes Payable	3,425,904	(326,783)	3,099,121[3]
Surtax	—	113,607	113,607[3]
Net Cash Operating Expenses	**$14,690,904**	**$(587,056)**	**$14,103,848**
Cash Requirements			
28/365 x 14,690,904	$ 1,126,973	$(1,126,973)[4]	—
16/365 x 14,103,848	—	618,251[4]	618,251
Materials and Supplies[5] Inventories	535,000	—	535,000
Prepaid Rent[5]	205,000	—	205,000
Prepaid Insurance[5]	51,000	—	51,000
Prepaid Municipal Taxes[5]	176,000	—	176,000
Unamortized Rate Case Expenses	112,500	(112,500)[6]	—
Unamortized Debt Issuance Expenses	117,000	(117,000)[6]	—
Unamortized Foreign Exchange Loss	1,418,994	(1,418,994)[6]	—
amortized Pension Plan Surplus	(338,461)	338,461[6]	—
Allowance for Working Capital	**$ 3,404,006**	**$(1,818,755)**	**$1,585,251**

1 NEB adjustments amount to $124,980 of this total (see Section 3.9).
Three other adjustments account for the remaining $260,000. These relate to operating fuel and power costs ($219,000), the amortization of debt issuance expenses ($4,000) and oil loss ($37,000). These were revisions made by the Company to its cost of service but not formally extended by it to the calculation of working capital.

2 Reflects disallowance of applied-for amount re business interruption insurance. See Section 3.5.

3 The determination of this amount requires the use of an iterative process. See Appendix II.

4 See Section 2.3.1.

5 Inventories and prepaid account balances reflect a 13-month average per the Company's application.

6 Unamortized items have been segregated from working capital as discussed in Section 2.3.2.

age method in accordance with the Board's decision to apply this method to the computation of all relevant rate base items (see Section 2.1). The test year current deferred income taxes are calculated below.

2.4.1 Computation of Test Year Current Deferred Income Taxes

Timing Differences	Per Application	Adjustments	Authorized by NEB
Depreciation	$ 1,846,970	$(10,970)	$1,836,000[1]
Capital Cost Allowance	(2,617,117)	—	(2,617,117)
Amortization of Rate Case Expenses	75,000	—	75,000
Amortization of Debt Issuance Expenses	26,000	(4,000)	22,000[2]
Depreciation of Right-of-Way	(21,564)	—	(21,564)
Recovery of Pension Costs	(135,384)	(67,693)	(203,077)[3]
Amortization of Maintenance Cost	20,000	—	20,000
Net Timing Differences	**$(806,095)**	**$(82,663)**	**$(888,758)**
Income Tax Rate	.49765	.49765	.49765
Current Deferred Income Taxes (Net Timing Differences x Tax Rate)	**$(401,153)**	**$(41,137)**	**$(442,290)**

1 See Section 3.6.
2 See Section 3.8.2.
3 See Section 3.8.4.

2.5 Computation of Allowed Rate Base

	Per Application	Adjustments	Authorized by NEB
Average Net Transportation Plant	$43,560,736	$ (15,025)	$43,545,711[1]
Working Capital	3,404,006	(1,818,755)	1,585,251[2]
Miscellaneous Deferred Items	—	1,327,626	1,327,626[3]
Accumulated Deferred Income Taxes	(8,000,470)	(94,988)	(8,095,458)[4]
Rate Base	**$38,964,272**	**$(601,142)**	**$38,363,130**

1 This amount reflects the use of a 13-month average as well as the Company's updated test year transportation plant balances. See Appendix V.
2 See Section 2.3.3.
3 See Section 2.3.2.
4 This amount reflects the use of a 13-month average and the adjustments shown in Section 2.4.1. See also Appendix V.

Chapter 3
Cost of Service Excluding Return

3.1 Salaries, Wages and Benefits

In its estimate of test year salaries and wages, Trans-Northern provided for a total increase of five percent. This total was comprised of a general adjustment of four percent and a further one percent for progressions and promotions. The Company stated that it had followed industry practice in the area in which it operates in making these wage adjustments.

The Company submitted the results of two surveys in support of its position. The first, conducted in the fall of 1984 by William M. Mercer Limited, forecasted overall increases of 6 and 5.4 percent respectively for the oil/gas industry and utilities during 1985. The second was an informal poll taken by Trans-Northern of eight companies in the petroleum industry. This survey indicated average actual 1985 salary awards of 5.15 percent.

In regard to staffing, the Company has not proposed to increase its total number of employees but does expect to employ more permanent staff and less temporary staff. In particular, it plans to add an additional draftsperson to the permanent staff since it will not employ contract drafting personnel in 1985.

With respect to employee benefits, Trans-Northern has not provided for any changes in its various plans during the test year. The cost of providing these benefits is expected to decrease marginally by 0.1 percent. This decrease reflects the net effect of reduced premiums for most of the Company's non-legislated benefit plans offset by higher premiums for legislated plans, namely Canada and Quebec Pension Plans, Workers Compensation, Unemployment Insurance and Provincial Health Plans. The Company indicated that it was able to obtain reduced premiums on its non-legislated plans because of the competitive market and the Company's favourable experience. The cost of employee benefits as a percentage of salaries and wages showed a decline from 20.7 percent in 1984 to 19.6 percent in 1985.

Based on the evidence presented, the Board has accepted the employee benefit costs submitted by the Applicant for inclusion in the allowed cost of service.

However, the evidence presented by the Company in respect of salaries and wages failed to convince the Board of the necessity of the applied-for five percent increase. The Board is of the view that a four percent total increase in salaries and wages is adequate to maintain the competitiveness of Trans-Northern's salary structure and has therefore decided to allow an amount which is $39,000 less than that applied for by the Company.

3.2 Inflation Factor

In computing amounts reflected in its application in respect of certain materials and supplies, outside services and other expenses, Trans-Northern indicated it had employed an expected long-run inflation rate of five percent in order to allow for inflation-related increases during the test year. The Company stated that it had done so because it felt that its present application may well form the basis for tolls for a period greater than one year.

It is the Board's view that the proposed test year increases cited above should primarily reflect inflationary expectations for 1985, inasmuch as the Company may apply to the Board outside of the context of a public toll hearing in order to obtain relief from inflation-related increases in operating expenses. Based on the evidence put forward in this regard, the Board has decided to allow the use of a 4.5 percent inflation factor in adjusting the relevant operating expenses. The effect of this decision is reflected in the computation of the allowed cost of service shown in Section 3.9.

3.3 Oil Loss Allowance

Trans-Northern applied to recover an amount of $250,000 in respect of product downgrading costs in its test year cost of service. This amount was subsequently amended by the Company in order to reflect a poll of its shippers taken during the hearing to update the prices of the various refined products it transports. The revised amount totalled $213,000.

The evidence presented indicated that product downgrading costs, which arise from the commingl-

ing of products at batch interfaces, had increased following the Board-approved changes made in 1983 to allow flow reversal in the system and thus the shipment of product into as well as out of Montreal.

Cross-examination regarding the increased downgrading costs revealed that the Company viewed these costs as being properly allocable over its entire system rather than to any particular shipper or shippers. In this regard, the Company stated that the flow reversal capability had provided increased flexibility for its shippers and an improved utilization of the pipeline system which in turn served to reduce the overall system's unit cost of transportation. The Company also indicated that five out of seven of its shippers had actually availed themselves of the system's flow reversal capability.

Based on the evidence heard in respect of this matter, the Board is of the view that Trans-Northern's product downgrading costs may be properly charged to all shippers on its system. Having found the Company's final product downgrading cost estimate of $213,000 to be acceptable, the Board therefore approves its inclusion in the test year cost of service.

3.4 Fuel and Power Costs

The Company applied to include an amount of $2,800,000 in respect of operating fuel and power costs in its test year cost of service. This estimate was first revised downwards to $2,583,000 in order to reflect the Company's revised throughput forecast and finally to $2,581,000 to reflect an updating of its projected Hydro-Québec power rate increase.

The Board accepts the Company's final fuel and power cost estimate of $2,581,000 and approves its inclusion in the test year cost of service.

3.5 Insurance Expense

Trans-Northern requested that an amount of $100,000 be included in its test year cost of service in respect of insurance costs.

While the evidence related to this matter indicated that virtually all of the Company's existing policies had been renewed by the time its application was heard, it also indicated that no final decision had been taken with respect to the proposed purchase of a policy of business interruption insurance, the estimated cost of which amounted to $11,100. During cross-examination, the Company stated that it was reasonably sure it would take the insurance and that it currently had its insurers performing a risk analysis of the system. The Applicant also stated that it expected a decision would be taken at mid-year.

Having regard to the fact that no final decision had been taken by the Company at the time of the hearing and that the outcome of the above-mentioned risk analysis could well affect the cost of the policy and the Company's decision to purchase it, the Board has decided to disallow the cost of the proposed business interruption insurance.

3.6 Depreciation Expense

Trans-Northern applied to have $1,847,000 included in its test year cost of service in respect of depreciation expense. This amount was revised downwards to $1,836,000, essentially to correct the amortization period related to certain leasehold improvements. The rates employed by the Company in arriving at the test year depreciation expense were those allowed by the Board in its 1981 Decision in light of its consideration of depreciation studies submitted by Trans-Northern.

The Board accepts the Company's revised depreciation expense estimate and approves its inclusion in the test year cost of service.

3.7 Income Taxes

The Applicant has used the normalized method of calculating its income tax provision in the past and proposes to follow the same practice in the test period. The methodology of calculating the income tax provision was not an issue at this hearing. The Board considers the continued use of the normalized method appropriate.

The calculation of the normalized income tax provision approved by the Board for inclusion in the test year cost of service is shown in Section 3.7.1.

3.7.1 Computation of Allowed Provision for Normalized Income Taxes

	Per Application	**Adjustments**	**Authorized by NEB**
Utility Income After Tax	$3,263,159	$(285,642)	$2,977,517[1]
Add (Deduct) Permanent Differences:			
Eligible Capital	(9,119)	(2,701)	(11,820)[2]
Non-Deductible Miscellaneous	20,000	—	20,000
Depreciation of Right-of-Way	21,564	—	21,564
Loss on Foreign Exchange	567,597	—	567,597
Normalized Income After Tax	**$3,863,201**	**$(288,343)**	**$3,574,858**
Normalized Income Tax Provision[3]	**$3,827,057**	**$(285,645)**	**$3,541,412**

1 Equals allowed return on rate base less interest expense ($5,547,309 - $2,569,792).

2 Exhibit 12, response to question 66.

3 Equals normalized income after tax x tax rate divided by (1 - tax rate), i.e. .49765 divided by .50235.

3.7.2 *Corporate Surtax*

In its 23 May 1985 budget, the federal government proposed a five percent temporary surtax on the federal income tax payable by large corporations. This surtax is to be in effect for the 12-month period 1 July 1985 to 30 June 1986.

As this budget proposal was made subsequent to the completion of the public hearing into its application, Trans-Northern had not reflected the surtax in its test year cost of service. Having no reason to believe that the surtax proposal will not become law, the Board felt it should be taken into account in the determination of the Company's allowed cost of service. The Board communicated its intentions in this regard and solicited comments from all interested parties in a telex dated 28 May 1985. No comments or objections were received from any party and the Board has decided to reflect the surtax in Trans-Northern's allowed cost of service.[1] The steps taken to implement this decision are outlined in Section 3.7.3.

1 As the five percent surtax applies to the 1 July 1985 to 30 June 1986 period while the Company's application is based on the calendar year 1985, the Board has employed a surtax rate of 2.5 percent in making its adjustments.

3.7.3 *Income Tax Rate*

Trans-Northern employed an overall tax rate of 49.765 percent in computing the amounts contained in its application in respect of both normalized income taxes and income taxes payable. This rate is comprised of a federal corporate tax rate of 36 percent and a composite provincial tax rate of 13.765 percent. The Board has approved the applied-for overall rate of 49.765 percent for use in the computation of normalized income taxes and income taxes payable. However, as a result of its decision to take into account the proposed federal surtax, the Board has increased the rate used in computing the amount of the surtax related revenue requirement to 50.665 percent. The derivation of this rate is shown below while the calculation of the $113,607 included in the allowed cost of service in respect of the surtax is shown in Appendix II.

	Percent
Federal Corporate Tax Rate	36.000
Composite Provincial Tax Rate	13.765
Income Tax Rate (excluding surtax)	**49.765**
Federal Corporate Surtax	.900[1]
Total	**50.665**

1 Federal Part I tax rate x 2.5% = 36% x 2.5%
= .900%

3.8 Amortization of Certain Deferred Amounts

The Company has applied to reflect the partial amortization of certain items in its test year cost of service. These are discussed individually below.

3.8.1 *Rate Case Expenses*

Trans-Northern estimated the costs associated with the public hearing on which this Decision is based to be $150,000. It has applied to amortize these costs over a two-year period, commencing with the test year.

The Board finds the Applicant's estimate of these expenses as well as its proposed amortization plan for them to be acceptable. Accordingly, the Board has included one-half of the $150,000 estimated total in the test year cost of service.

3.8.2 *Debt Issuance Expenses*

As discussed more fully in Section 4.2 of this Decision, the Company issued two $10,000,000 notes in late 1984. Trans-Northern's original estimate of the expenses associated with the two debt issues amounted to $130,000. This figure was revised downwards to $111,747 following the receipt of final billings by the Company.

Trans-Northern has proposed recovering the issuance expenses directly in the cost of service rather than modifying the cost rates of the two issues so as to provide for the more customary recovery of such costs through the rate of return or return on rate base. The Board notes that the recovery of issuance costs through the rate of return or return on rate base involves the use of the net proceeds method[1] in calculating the cost rate of debt. To the extent that this method is applied annually to the amount of bonds outstanding, the cost rate of debt should be adjusted on a regular basis.

Having regard to the desirability of eliminating the regulatory burden associated with such adjustments, the Board has decided to allow the debt issuance expenses to be recovered in the applied-for manner.

1 Under this method the cost rate of debt is calculated as interest plus amortization of debt issuance costs divided by the outstanding gross principal amount of debt less unamortized debt issuance costs. Since the amortization of the debt issuance costs remains constant while the unamortized balance of these costs declines, the debt cost rate will vary over time.

As indicated previously, the Company incurred total issuance costs of $111,747. Cross-examination revealed that, of this total, underwriting fees of $30,000 and $50,000 were allocated to the three and ten-year issues respectively in accordance with the terms of the Company's agency agreement. The remaining $31,747 in legal, printing and auditing costs were split equally between the two issues, bringing the total expenses allocated to the three and ten-year issues to $45,873 and $65,874 respectively.

The Board finds the Company's division of the total costs between the two issues to be reasonable. In view of this and its decision approving the manner in which the Company has applied to recover these costs, the Board has allowed the inclusion of $22,000 in the test year cost of service.

3.8.3 Foreign Exchange Loss

Trans-Northern has applied to recover $1,704,000 in respect of the foreign exchange loss it incurred upon retiring its U.S. debt in November 1984. During the hearing, the Company agreed that a more precise figure for this loss was $1,702,792.

The Company proposed a three-year amortization period for its loss on the assumption that three years would elapse before its next public hearing. Upon being questioned as to why the loss should be amortized over the period between public hearings, the Company indicated that while it felt the recovery was not something that should go on for a long time, it also felt the amount to be too large to write off in any given year.

Cross-examination also revealed that the Company had recognized the possibility of incurring this loss and that it had sought and received advice at the time of borrowing from its financial advisors, in whose judgment hedging was not warranted on the basis of cost.

Based on the evidence presented in respect of this matter, the Board has decided to allow the Company to amortize the foreign exchange loss of $1,702,792 over the applied-for period of three years. Accordingly, the Board has included $567,597 in the allowed test year cost of service.

3.8.4 Pension Plan Surplus

Trans-Northern has applied to amortize a pension plan surplus of $406,153 over a three-year period commencing with the test year.

The evidence presented in connection with this matter indicated that an actuarial valuation of the employees' pension plan as of 1 January 1984 had revealed a surplus amounting to approximately $659,000. Of this amount, $252,875 was applied against 1984 premiums associated with the plan while the remaining $406,153 was received in cash. During cross-examination, the Company confirmed that an actuarial valuation of its pension plan was required every three years and that this formed the basis of the proposed three-year amortization period.

Based on the evidence put forward, the Board considers it appropriate to amortize the $406,153 surplus in the cost of service. The Board notes, however, that the next actuarial valuation, if performed as required every three years, will be effective as of 1 January 1987. The Board has therefore decided to amortize the refunded surplus over two years and has, accordingly, reduced the test year cost of service by $203,077, rather than the $135,000 applied for by the Company.

3.9 Computation of Allowed Cost of Service Excluding Return

Having regard to its decisions in respect of cost of service matters, the Board has calculated below the cost of service excluding return to be allowed the Company.

	Per Application	Adjustments	Authorized by NEB
Salaries and Wages	$ 4,206,000	$ (39,000)[1]	$ 4,167,000
Materials and Supplies	495,000	(1,100)[1]	493,900
Outside Services	1,465,000	(3,700)[1]	1,461,300
Other Expenses	499,000	(1,600)[1]	497,400
Operating Fuel and Power	2,800,000	(219,000)[2]	2,581,000
Oil Loss	250,000	(37,000)[2]	213,000
Legal Expense	70,000	—	70,000
Rental Expense	775,000	—	775,000
Damage Expense	5,000	—	5,000
Employee Benefits	826,000	—	826,000
Insurance Expense	100,000	(11,100)[1]	88,900
Depreciation Expense	1,847,000	(11,000)[2]	1,836,000
Taxes Other Than Income Taxes	1,435,000	—	1,435,000
Normalized Income Taxes	3,827,000	(285,588)[1]	3,541,412
Surtax	—	113,607[1]	113,607
Amortization of Debt Issuance Expenses	26,000	(4,000)[2]	22,000
Amortization of Foreign Exchange Loss	568,000	(403)[1]	567,597
Amortization of Rate Case Expenses	75,000	—	75,000
Amortization of Pension Plan Surplus	(135,000)	(68,077)[1]	(203,077)
Cost of Service Excluding Return	**$19,134,000**	**$ (567,961)**	**$18,566,039**

1 Board adjustments:

Salaries and Wages adjusted to reflect a 4 percent increase rather than the applied-for 5 percent. See Section 3.1.

Material and Supplies, Outside Services, and Other Expenses adjusted to reflect a 4.5 percent inflation factor rather than the applied-for 5 percent. See Section 3.2.

Insurance expense adjusted to reflect disallowance of proposed business interruption insurance. See Section 3.5.

Normalized Income Taxes adjusted basically to reflect the Board's decision to reduce the applied-for return on common equity. See Section 3.7.1.

Surtax as announced in 23 May 1985 Federal Budget. See Section 3.7.2.

Foreign Exchange Loss adjusted to reflect the precise amount of this cost. See Section 3.8.3.

Pension Plan Surplus adjusted to reflect the two-year amortization allowed by the Board rather than the applied-for three-year period. See Section 3.8.4.

2 Company revisions:

Operating Fuel and Power costs were first revised downwards by $217,000 per Exhibit 37 and further reduced by an additional $2,000. See Section 3.4.

Oil Loss revised to reflect updated product prices. See Section 3.3.

Depreciation Expense revised to reflect corrected amortization of leasehold improvements. See Section 3.6.

Debt Issuance Expenses revised to reflect actual expenses. See Section 3.8.2.

Chapter 4
Rate of Return

Trans-Northern applied for a rate of return on rate base of 14.97 percent as compared to the existing approved rate of 16.10 percent. The applied-for capital structure and the associated individual cost rates are shown below.

4.1 Capital Structure

The applied-for capital structure, consisting of 49.3 percent debt and 50.7 percent equity, represents the Company's projected actual test year capitalization. The shareholders' equity component of total capitalization was derived using a simple average of the opening and closing balances, while the two long-term debt balances were determined according to a 12-month weighted average methodology.

The appropriateness of the proposed actual capital structure was examined during the hearing and the Board finds it to be acceptable in light of the business risks faced by the Company.

With respect to the method employed to compute the average test year capitalization, the Company agreed during cross-examination that the 13-month basis it had found acceptable for purposes of computing net plant was equally appropriate here. Accordingly, the Board has decided to employ a 13-month average in computing the allowed capitalization for the test year.

4.2 Cost of Debt

Trans-Northern has employed the gross, rather than net, proceeds approach in calculating the cost of its debt.[1] The Board notes that the use of this method is consistent with the Company's approved request to recover the issuance costs associated with its debt directly in the cost of service and to include the unamortized balances of these costs in rate base. Accordingly, the Board has approved the use of this method in determining the test year cost of debt.

The Company's current long-term debt consists of $10,000,000 in term notes due 30 October 1987 and $10,000,000 in instalment notes due 31 October 1994, with associated interest rates of 13 and 13.25 percent respectively. These funds, borrowed from institutional investors in late 1984, replaced Trans-Northern's previously existing single long-term debt obligation of $12,750,000 U.S. which became due in November 1984.

1 Under the gross proceeds method, the cost of debt is simply calculated as interest divided by the gross principal amount of debt outstanding. Under the net proceeds method, the cost rate of debt is calculated as interest plus amortization of debt issuance costs divided by the gross principal amount of debt outstanding less unamortized debt issuance costs.

Applied-For Rate of Return on Rate Base

	Capitalization	Cost Ratio (%)	Cost Rate (%)	Component (%)
Long-Term Debt				
Three-Year	$10,000,000	25.2	13.00	3.28
Ten-Year	9,583,000	24.1	13.25	3.20
Shareholders' Equity	20,130,410	50.7	16.75	8.49
Total	**$39,713,410**	**100.0**		**14.97**

A Company witness stated that it is unlikely that Trans-Northern will require another long-term debt issue in the near future. This factor, together with its view as to the possibility that interest rates may fall during the next decade, led to the decision to issue two separate debt issues. Thus, with one-half of its debt obligations requiring renewal in three years, Trans-Northern indicated that it hopes to refinance at a rate lower than that which is currently in place. The Board finds the cost rates for debt of 13 and 13.25 percent to be reasonable and has accepted their use in determining the overall rate of return to be allowed the Company.

4.3 Rate of Return on Equity

The Applicant requested a rate of return on common equity of 16.75 percent, as compared to the currently allowed rate of 15 percent. In support of the requested rate, Trans-Northern relied on the advice of its expert witness who employed the comparable earnings, discounted cash flow (DCF) and equity risk premium approaches in estimating the cost of equity capital. The witness placed primary emphasis on the results of his comparable earnings test, using the results of the other two cost estimation techniques as a check on the comparable earnings results.

For his comparable earnings analysis, the Company's expert witness selected two sample groups. In his opinion, these samples contained companies of high-grade and investment-grade quality respectively. Based on his assessment of the risk level inherent in Trans-Northern's operations, he placed greater emphasis on the results obtained for his investment-grade sample. The companies comprising each sample were selected on the basis of stock rankings provided by Standard & Poor's and the Canadian Business Service. Cross-examination in this regard revealed that another expert witness, who had appeared previously in another proceeding before the Board, was of the opinion that exclusive reliance should not be placed on the use of stock rankings as a sample selection criterion.

The witness noted that the median and average rates of return on book equity earned over the last business cycle for his investment-grade companies were 18.6 and 19 percent respectively. The witness then adjusted these results downward to reflect current inflationary expectations, rather than the average level of inflation experienced over the last complete business cycle. He concluded from his comparable earnings analysis that the appropriate rate of return on common equity should be in the range of 16.25 to 16.75 percent.

With respect to his DCF analysis, the witness concluded that the investors' required rate of return (IRR) for Trans-Northern lay in the range of 14.75 to 15.25 percent. In this regard, the witness noted that the calculation of the dividend yield component of the DCF technique is fairly straightforward, whereas considerable judgment is necessary when estimating the growth component of the DCF formula. The midpoint of this IRR range was adjusted upwards to a level of 15.8 to 16.5 percent to reflect a market-to-book ratio of 1.1 to 1.2. This market-to-book level would, in the witness' opinion, allow Trans-Northern a reasonable opportunity to undertake new common equity financing on a stand-alone basis without diluting the Company's nominal book value per share. During cross-examination the witness stated that a market-to-book ratio of 1.1, while not being adequate for Trans-Northern under adverse market conditions, would otherwise probably be sufficient in terms of compensating for the basic financing and market pressure costs.

Through his application of the equity risk premium approach, the Company's expert witness concluded that the IRR for Trans-Northern lay in the range of 15 to 15.5 percent. The results of the witness' analysis of two historical risk premium studies suggested to him that an appropriate equity risk premium was in the order of 3.25 to 4 percentage points over and above the yield on long-term Government of Canada bonds. After considering a number of qualitative factors, the witness concluded that the appropriate equity risk premium to use for the purpose of his analysis was 3.5 percent. The witness then added this risk premium to a long-term Government of Canada bond yield of 11.5 to 12 percent. The witness subsequently restated the midpoint of his IRR range to reflect a market-to-book ratio of 1.1 to 1.2, resulting in a rate of return on book equity range of 16.1 to 16.8 percent. However, the witness concluded that the fair rate of return on common equity for Trans-Northern should be constrained by the results obtained from the comparable earnings technique.

Based on the results of his various cost estimation techniques, with particular emphasis being placed on his comparable earnings results, the witness concluded that a fair rate of return on Trans-Northern's common equity would fall in the range of 16.25 to 16.75 percent. During cross-examination, the witness stated that he would tend to focus on the midpoint of this range.

With respect to the business risks inherent in Trans-Northern's operations, a witness for the Applicant stated it was difficult to predict the reduction in the Company's long-haul movements that would be

brought about by deregulation. He viewed this lack of predictability as increasing the level of business risk faced by the Company. The Company's expert witness, while not being able to quantify such changes in business risk as may have occurred since the time of its last toll hearing, characterized Trans-Northern's level of business risk as being greater than that of Interprovincial Pipe Line Limited and approximately on a par with that of Trans Mountain Pipe Line Company Ltd., ignoring considerations relating to factors such as asset vintages.

The Board is of the view that the determination of an appropriate rate of return on equity involves the use of methods that are subject to the exercise of judgment. Accordingly, based on all of the evidence presented and having regard to the level of business risk faced by the Company and the current inflation and interest rate prospects, the Board finds 15.75 percent to be a fair and reasonable rate of return on common equity.

4.4 Rate of Return on Rate Base

Based upon its findings in this case, the Board has decided that a rate of return on rate base of 14.46 percent is fair and reasonable. The derivation of this rate is shown below.

Approved Rate of Return on Rate Base

	Capitalization[1]	Cost Ratio (%)	Cost Rate (%)	Component (%)
Long-Term Debt[2]				
Three-Year	$10,000,000	25.13	13.00	3.27
Ten-Year	9,615,385	24.16	13.25	3.20
Common Equity	20,178,604	50.71	15.75	7.99
Total	**$39,793,989**	**100.00**		**14.46**

1 The derivation of the individual 13-month average capitalization amounts is shown in Appendix V.

2 Amounts and cost rates calculated on a gross proceeds basis. See Section 4.2.

4.5 Computation of Allowed Return on Rate Base

Based on the Board's decisions with respect to rate base and rate of return matters in this case, the total return allowed the Company for the 1985 test year is $5,547,309. The derivation of this amount is shown below.

Allowed Return on Rate Base

Rate Base per Section 2.5	**$38,363,130**
Total Allowed Return (14.46 percent x 38,363,130)	**$5,547,309**

Chapter 5
Total Allowed Cost of Service or Revenue Requirement

Having regard to all of its decisions with respect to rate base, cost of service and rate of return matters, the Board has computed below the total cost of service or revenue requirement to be allowed the Company.

	Per Application	Adjustments	Authorized by NEB
Salaries and Wages	$ 4,206,000	$ (39,000)	$ 4,167,000
Materials and Supplies	495,000	(1,100)	493,900
Outside Services	1,465,000	(3,700)	1,461,300
Other Expenses	499,000	(1,600)	497,400
Operating Fuel and Power	2,800,000	(219,000)	2,581,000
Oil Loss	250,000	(37,000)	213,000
Legal Expense	70,000	—	70,000
Rental Expense	775,000	—	775,000
Damage Expense	5,000	—	5,000
Employee Benefits	826,000	—	826,000
Insurance Expense	100,000	(11,100)	88,900
Depreciation Expense	1,847,000	(11,000)	1,836,000
Taxes Other Than Income Taxes	1,435,000	—	1,435,000
Normalized Income Taxes	3,827,000	(285,588)	3,541,412
Surtax	—	113,607	113,607
Amortization of Debt Issuance Expenses	26,000	(4,000)	22,000
Amortization of Foreign Exchange Loss	568,000	(403)	567,597
Amortization of Rate Case Expenses	75,000	—	75,000
Amortization of Pension Plan Surplus	(135,000)	(68,077)	(203,077)
Total Cost of Service Excluding Return	$19,134,000	$ (567,961)	$18,566,039[1]
Return on Rate Base	5,833,000	(285,691)	5,547,309[2]
Total Allowed Cost of Service	**$24,967,000**	**$(853,652)**	**$24,113,348**

1 See Section 3.9.

2 See Section 4.5.

Chapter 6
Toll Design

6.1 Throughput

Trans-Northern submitted a throughput forecast for the test year 1985 of 8 650 000 m^3. This forecast was later revised to 8 825 000 m^3 to reflect actual first quarter 1985 deliveries, updated shipper estimates and the Company's assumptions concerning the effects of deregulation as set out in "The Western Accord" which calls for the elimination of administered pricing of Canadian crude oil and the removal of import and export controls, effective 1 June 1985. The revised throughput reflects an increase in deliveries of about 4 percent over 1984.

The principal matter raised during the hearing in relation to throughput involved the effects of deregulation on the sourcing of Ottawa deliveries. The Applicant is of the opinion that Ottawa deliveries will continue to be sourced from both Montreal and Toronto following deregulation. However, it believes that Ottawa will receive about 75 percent rather than the present 50 percent of its deliveries from Montreal.

The Board recognizes that it is difficult at this time to develop a reliable throughput forecast for 1985, given that deregulation becomes effective 1 June 1985. The Board also believes that factors in the international market such as the availability of attractively priced product imports, the supply and price of offshore crude oil and the availability and price of domestic crude oil may affect the sourcing of Ottawa deliveries. All of these factors are beyond the control of Trans-Northern.

Based on the evidence before it in this matter, the Board finds the revised throughput forecast submitted by Trans-Northern for the year 1985 to be reasonable and accepts it for use in the design of tolls.

6.2 Toll Design Methodology

The Applicant has designed the rates for the test year 1985 in accordance with the principles approved in the Board's 1981 Decision, with the exception of the allocation of overhead expenses. The proposed departure involves a change in the method of allocating overhead expenses to the various cost centres, namely, lifting, transmission, delivery and the Toronto, Dorval and Mirabel airports. The Company expressed the view that the existing method of overhead allocation (50 percent transmission; 25 percent lifting; and 25 percent delivery, with allocation to individual terminals on the basis of total deliveries) resulted in an inequitable distribution of overhead costs. In the Company's view, the proposed methodology of prorating the overhead costs to the various cost centres on the basis of the total direct costs associated with each activity more appropriately reflected both the assets and expenses associated with the function. The Company presented its analysis and comparison of the results achieved under the existing and proposed methodologies in order to demonstrate the validity of its position.

In final argument, an intervenor expressed the view that the proposed method of allocating overhead would result in the airports bearing more than an appropriate share of such costs and proposed that all overhead costs be charged to transmission.

The Board notes that the revised methodology results in an increase in the overhead costs allocated to the airports. However, it is of the view that the overall impact on the final tolls is the key consideration and that the airports have not been unduly affected in this regard. The Board agrees with the Company's view that the proposed methodology results in a more equitable allocation of overhead costs and has therefore decided to allow its use in the design of Trans-Northern's tolls.

The Company's proposed allocation of average rate base and return on rate base for toll design purposes is shown in Appendix III, and its proposed allocation of the revenue requirement is shown in Appendix IV. Each of these three items, together with the individual amounts comprising them, reflect the relevant decisions of the Board discussed previously herein.

6.3 Determination of Tolls

The Board has approved a revenue requirement of $24,113,348. Also, it has accepted the Company's

revised throughput forecast of 8 825 000 m^3 as the basis for determining the tolls.

The unit charges or tariff components reflected in the application are compared below to those computed after giving effect to all of the Board's decisions in respect of it. From these tariff components, the Board has derived the approved tolls. The Board finds that the tolls contained in Schedule A of Appendix I are just and reasonable and directs that these tolls be charged, effective 1 July 1985.[1]

1 Notwithstanding the combined effect of the downward adjustments made by the Board to the Company's applied-for revenue requirement and the increase of 175 000 m^3 in total throughput over its original forecast, the approved tolls shown in Schedule A of Appendix I are for the most part higher than those requested by the Applicant. This is due to to the fact that the Company's revised throughput forecast reflected a reduction in long-haul product movements. This in turn reduced the number of cubic metre kilometres used in computing the unit transmission charge component of the tolls appearing in Schedule A.

Tariff Components (in Cents)

	Per Application	Adjustments	Authorized by NEB
Lifting (per m^3)	21.03	(0.97)	20.06
Transmission (per m^3km)	1.08	0.08	1.16
Delivery (per m^3)	32.49	(0.93)	31.56
Airport Terminals (per m^3)			
Toronto	102.60	(2.44)	100.16
Dorval	134.06	5.94	140.00
Mirabel	116.88	(28.33)[1]	88.55

1 Adjustment primarily reflects Company's revision to throughput forecast for Mirabel. Volumes to be transported increased from 350 000 to 450 000 m^3.

Chapter 7
Disposition

Order No. TO-3-85, which is shown as Appendix 1, is predicated upon these Reasons for Decision. The foregoing, together with the above Order, constitute our Reasons for Decision and our Decision on the application by Trans-Northern Pipelines Inc.

W.G. Stewart
Presiding Member

R.F. Brooks
Member

A.B. Gilmour
Member

Ottawa, Canada
May, 1985

Appendix I

ORDER NO. TO-3-85

IN THE MATTER OF the National Energy Board Act and the Regulations made thereunder;

AND IN THE MATTER OF an application by Trans-Northern Pipelines Inc. (hereinafter called "the Applicant" or "the Company") for certain orders respecting tolls pursuant to Part IV of the National Energy Board Act, filed with the Board under File No. 1762-T2-8.

BEFORE:

W.G. Stewart
Presiding Member

R.F. Brooks
Member

On Friday the 31st day of May 1985.

A.B. Gilmour
Member

UPON an application by the Applicant dated the 8th day of February 1985, as amended, under Part IV of the National Energy Board Act, for orders fixing the just and reasonable tolls the Company may charge for or in respect of the transportation of refined petroleum products and for such further order or orders as will enable the Company to file a tariff containing tolls which are just and reasonable.

AND UPON the Board having heard the evidence and submissions relating to the said application at a public hearing held on the 15th, 16th and 17th days of April 1985;

AND UPON the Board, by telex dated the 1st day of May 1985, having given interested parties the opportunity to respond in writing to the additional information supplied by the Company under cover of a letter dated the 25th day of April 1985 and having duly considered all representations concerning the same;

AND UPON the Board, by telex dated the 28th day of May 1985, having notified interested parties of its intention to take into account, in determining the Company's allowed cost of service, the corporate surtax announced by the Federal Minister of Finance on the 23rd day of May 1985 and having given the parties the opportunity to file comments in respect thereof and having not received any such comments;

IT IS ORDERED THAT:

1. The Company shall, effective the 1st day of July 1985, charge for or in respect of the transportation of refined petroleum products the tolls prescribed in Schedule A hereto.
2. The Company shall forthwith file with the Board a tariff conforming with this Order and serve it upon:
   (a) the Company's shippers;
   (b) the Attorneys General of Ontario and Quebec;
   (c) all intervenors who appeared at the above-mentioned hearing; and
   (d) any person who notifies the Company and the Board that he wishes to be registered as an interested person in the Company's tolls and tariffs, and is accepted by the Board as such.
3. Notwithstanding the filing of the tariff referred to in paragraph 2 hereof, the same shall remain suspended and be of no effect until the 1st day of July 1985.
4. Those provisions of the Applicant's tariff, or any portion thereof, that are contrary to any provisions of the National Energy Board Act, or to any Order of the Board including this Order, be and the same are hereby disallowed, such disallowance to be effective on the 1st day of July 1985.

NATIONAL ENERGY BOARD

G. Yorke Slader
Secretary

Schedule "A"

Trans-Northern Pipelines Inc.
Tolls Effective 1 July 1985 in Dollars Per Cubic Metre at 15°C

	Points of Origin					
Destination	Montreal East Quebec	Nanticoke Ontario	Port Credit Ontario	Clarkson Ontario	Oakville Ontario	North Toronto Ontario
Dorval, Quebec (Jet)	2.076	9.929	8.763	8.840	9.007	8.380
Dorval, Quebec (Non-Jet)	0.992	8.845	7.679	7.755	7.923	7.296
Mirabel, Quebec	1.623	9.475	8.309	8.386	8.553	7.926
Cornwall, Ontario	1.907	6.978	5.812	5.889	6.056	5.429
Ottawa, Ontario	2.984	7.476	6.310	6.387	6.555	5.927
Prescott, Ontario	2.780	6.172	5.005	5.082	5.250	4.623
Maitland, Ontario	2.926	5.959	4.793	4.870	5.037	4.410
Hamilton, Ontario	—	1.219	—	—	—	—
Oakville, Ontario	—	1.438	—	—	—	—
Clarkson, Ontario	—	1.605	—	—	0.684	—
Port Credit, Ontario	—	1.691	—	0.602	0.769	—
Toronto Airport, Ontario	—	2.633	1.467	1.544	1.711	—
North Toronto, Ontario	—	2.065	0.899	0.976	1.143	—
Toronto Harbour, Ontario	—	2.400	1.234	1.311	1.478	0.851
Markham, Ontario	—	2.305	1.139	1.216	1.383	0.756
Port Hope, Ontario	—	3.244	2.078	2.155	2.322	1.695
Belleville, Ontario	—	4.150	2.984	3.061	3.228	2.601
Kingston, Ontario	—	4.945	3.779	3.856	4.023	3.396
Montreal, Quebec	—	8.369	7.203	7.280	7.447	6.820

Appendix II

Iteration Process for the Calculation of the Corporate Surtax and Income Taxes Payable Included in Cash Working Capital

First Approximation of Rate Base			
Average Net Plant in Service			$43,545,711
Average Accumulated Deferred Income Taxes			(8,095,458)
			35,450,253
Cash Working Capital			
Total Operating Expenses	$13,075,020		
Less: Municipal Property Taxes	1,320,000		
Insurance Expense	88,900		
Rental Expense	775,000	$10,891,120	
Add: Income Taxes Payable		—	
Corporate Surtax Revenue Requirement		—	
Net Cash Operating Expenses		**$10,891,120**	
Cash Working Capital (16/365 x $10,891,120)			477,419
Material and Supplies			535,000
Prepaid Rent			205,000
Prepaid Insurance			51,000
Prepaid Municipal Taxes			176,000
Miscellaneous Deferred Items			
Unamortized Rate Case Expenses		$112,500	
Unamortized Debt Issuance Expenses		100,747	
Unamortized Foreign Exchange Loss		1,418,994	
Unamortized Pension Plan Surplus		(304,615)	1,327,626
Average Rate Base			**$38,222,298**

Iteration Process for the Calculation of the Corporate Surtax and Income Taxes Payable Included in Cash Working Capital

First Approximation of Income Taxes Payable		
Return on Rate Base (.1446 x $38,222,298)	$5,526,944	
Less: Interest Expense	2,569,792	
Utility Income After Tax	2,957,152	
Add (Deduct) Permanent Differences		
Eligible Capital	(11,820)	
Non-Deductible Miscellaneous	20,000	
Depreciation of Right-of-Way	21,564	
Loss on Foreign Exchange	567,597	$3,554,493
Normalized Income Tax Provision		
$\$3,554,493 \times \dfrac{.49765}{1 - .49765}$		3,521,237
Add (Deduct) Timing Differences		
Depreciation Expense	$1,836,000	
Capital Cost Allowance	(2,617,117)	
Amortization of Rate Case Expenses	75,000	
Amortization of Debt Issuance Expenses	22,000	
Depreciation of Right-of-Way	(21,564)	
Recovery of Pension Costs	(203,077)	
Amortization of Maintenance Cost	20,000	(888,758)
Taxable Income		**$6,186,972**
Federal Part I Tax Payable ($6,186,972 x .36)		$2,227,310
Provincial Income Tax Payable ($6,186,972 x .13765)		851,637
Income Taxes Payable		**$3,078,947**
Corporate Surtax ($2,227,310 x .025)		$55,683
Corporate Surtax Provision $\$55,683 \times \dfrac{.50665}{1 - .50665}$ [1]		57,184
Corporate Surtax Revenue Requirement		**$112,867**

1 See Section 3.7.3.

Iteration Process for the Calculation of the Corporate Surtax and Income Taxes Payable Included in Cash Working Capital

Second Approximation of Rate Base			
Average Net Plant in Service			$43,545,711
Average Accumulated Deferred Income Taxes			(8,095,458)
			35,450,253
Cash Working Capital			
Total Operating Expenses	$13,075,020		
Less: Municipal Property Taxes	1,320,000		
Insurance Expense	88,900		
Rental Expense	775,000	$10,891,120	
Add: Income Taxes Payable		3,078,947	
Corporate Surtax Revenue Requirement		112,867	
Net Cash Operating Expenses		**$14,082,934**	
Cash Working Capital (16/365 x $14,082,934)			617,334
Material and Supplies			535,000
Prepaid Rent			205,000
Prepaid Insurance			51,000
Prepaid Municipal Taxes			176,000
Miscellaneous Deferred Items			
Unamortized Rate Case Expenses		$112,500	
Unamortized Debt Issuance Expenses		100,747	
Unamortized Foreign Exchange Loss		1,418,994	
Unamortized Pension Plan Surplus		(304,615)	1,327,626
Average Rate Base			**$38,362,213**

Iteration Process for the Calculation of the Corporate Surtax and Income Taxes Payable Included in Cash Working Capital

Second Approximation of Income Taxes Payable

Return on Rate Base (.1446 x $38,362,213)	$5,547,176	
Less: Interest Expense	2,569,792	
Utility Income After Tax	2,977,384	
Add (Deduct) Permanent Differences		
Eligible Capital	(11,820)	
Non-Deductible Miscellaneous	20,000	
Depreciation of Right-of-Way	21,564	
Loss on Foreign Exchange	567,597	3,574,725
Normalized Income Tax Provision		
$\$3,574,725 \times \frac{.49765}{1 - .49765}$		3,541,280
Add (Deduct) Timing Differences		
Depreciation Expense	$1,836,000	
Capital Cost Allowance	(2,617,117)	
Amortization of Rate Case Expenses	75,000	
Amortization of Debt Issuance Expenses	22,000	
Depreciation of Right-of-Way	(21,564)	
Recovery of Pension Costs	(203,077)	
Amortization of Maintenance Cost	20,000	(888,758)
Taxable Income		**$6,227,247**
Federal Part I Tax Payable ($6,227,247 x .36)		$2,241,809
Provincial Income Tax Payable ($6,227,247 x .13765)		857,181
Income Taxes Payable		**$3,098,990**
Corporate Surtax ($2,241,809 x .025)		$56,045
Corporate Surtax Provision $\$56,045 \times \frac{.50665^{1}}{1 - .50665}$		57,556
Corporate Surtax Revenue Requirement		**$113,601**

1 See Section 3.7.3.

Iteration Process for the Calculation of the Corporate Surtax and Income Taxes Payable Included in Cash Working Capital

Third Approximation of Rate Base			
Average Net Plant in Service			$43,545,711
Average Accumulated Deferred Income Taxes			(8,095,458)
			35,450,253
Cash Working Capital			
Total Operating Expenses	$13,075,020		
Less: Municipal Property Taxes	1,320,000		
Insurance Expense	88,900		
Rental Expense	775,000	$10,891,120	
Add: Income Taxes Payable		3,098,990	
Corporate Surtax Revenue Requirement		113,601	
Net Cash Operating Expenses		**$14,103,711**	
Cash Working Capital (16/365 x $14,103,711)			618,245
Material and Supplies			535,000
Prepaid Rent			205,000
Prepaid Insurance			51,000
Prepaid Municipal Taxes			176,000
Miscellaneous Deferred Items			
Unamortized Rate Case Expenses		$112,500	
Unamortized Debt Issuance Expenses		100,747	
Unamortized Foreign Exchange Loss		1,418,994	
Unamortized Pension Plan Surplus		(304,615)	1,327,626
Average Rate Base			**$38,363,124**

Iteration Process for the Calculation of the Corporate Surtax and Income Taxes Payable Included in Cash Working Capital

Third Approximation of Income Taxes Payable

Return on Rate Base (.1446 x $38,363,124)	$5,547,308	
Less: Interest Expense	2,569,792	
Utility Income After Tax	2,977,516	
Add (Deduct) Permanent Differences		
Eligible Capital	(11,820)	
Non-Deductible Miscellaneous	20,000	
Depreciation of Right-of-Way	21,564	
Loss on Foreign Exchange	567,597	$3,574,857
Normalized Income Tax Provision		
$\$3,574,857 \times \frac{.49765}{1 - .49765}$		3,541,411
Add (Deduct) Timing Differences		
Depreciation Expense	$1,836,000	
Capital Cost Allowance	(2,617,117)	
Amortization of Rate Case Expenses	75,000	
Amortization of Debt Issuance Expenses	22,000	
Depreciation of Right-of-Way	(21,564)	
Recovery of Pension Costs	(203,077)	
Amortization of Maintenance Cost	20,000	(888,758)
Taxable Income		**$6,227,510**
Federal Part I Tax Payable ($6,227,510 x .36)		$2,241,904
Provincial Income Tax Payable ($6,227,510 x .13765)		857,217
Income Taxes Payable		**$3,099,121**
Corporate Surtax ($2,241,904 x .025)		$56,048
Corporate Surtax Provision $\$56,048 \times \frac{.50665^{1}}{1 - .50665}$		57,559
Corporate Surtax Revenue Requirement		**$113,607**

1 See Section 3.7.3.

Iteration Process for the Calculation of the Corporate Surtax and Income Taxes Payable Included in Cash Working Capital

Fourth Approximation of Rate Base			
Average Net Plant in Service			$43,545,711
Average Accumulated Deferred Income Taxes			(8,095,458)
			35,450,253
Cash Working Capital			
Total Operating Expenses	$13,075,020		
Less: Municipal Property Taxes	1,320,000		
Insurance Expense	88,900		
Rental Expense	775,000	$10,891,120	
Add: Income Taxes Payable		3,099,121	
Corporate Surtax Revenue Requirement		113,607	
Net Cash Operating Expenses		**$14,103,848**	
Cash Working Capital (16/365 x $14,103,848)			618,251
Material and Supplies			535,000
Prepaid Rent			205,000
Prepaid Insurance			51,000
Prepaid Municipal Taxes			176,000
Miscellaneous Deferred Items			
Unamortized Rate Case Expenses		$112,500	
Unamortized Debt Issuance Expenses		100,747	
Unamortized Foreign Exchange Loss		1,418,994	
Unamortized Pension Plan Surplus		(304,615)	1,327,626
Average Rate Base			**$38,363,130**

Iteration Process for the Calculation of the Corporate Surtax and Income Taxes Payable Included in Cash Working Capital

Fourth Approximation of Income Taxes Payable

Return on Rate Base (.1446 x $38,363,130)	$5,547,309	
Less: Interest Expense	2,569,792	
Utility Income After Tax	2,977,517	
Add (Deduct) Permanent Differences		
Eligible Capital	(11,820)	
Non-Deductible Miscellaneous	20,000	
Depreciation of Right-of-Way	21,564	
Loss on Foreign Exchange	567,597	$3,574,858
Normalized Income Tax Provision		
$\$3,574,858 \times \frac{.49765}{1 - .49765}$		3,541,412
Add (Deduct) Timing Differences		
Depreciation Expense	$1,836,000	
Capital Cost Allowance	(2,617,117)	
Amortization of Rate Case Expenses	75,000	
Amortization of Debt Issuance Expenses	22,000	
Depreciation of Right-of-Way	(21,564)	
Recovery of Pension Costs	(203,077)	
Amortization of Maintenance Cost	20,000	(888,758)
Taxable Income		**$6,227,512**
Federal Part I Tax Payable ($6,227,512 x .36)		$2,241,904
Provincial Income Tax Payable ($6,227,512 x .13765)		857,217
Income Taxes Payable		**$3,099,121**
Corporate Surtax ($2,241,904 x .025)		$56,048
Corporate Surtax Provision $\$56,048 \times \frac{.50665^{1}}{1 - .50665}$		57,559
Corporate Surtax Revenue Requirement		**$113,607**

1 See Section 3.7.3.

Appendix III

Allocation of average rate base and return on rate base

	Lifting	Transmission	Delivery	Toronto Airport	Dorval Airport	Mirabel Airport	Totals[1]
Average Net Assets	$3,811,624	$35,353,742	$2,174,091	$1,048,805	$353,925	$803,524	$43,545,711
Allowance for Working Capital	138,759	1,287,029	79,146	38,181	12,884	29,252	1,585,251
Miscellaneous Deferred Items	116,209	1,077,869	66,284	31,976	10,790	24,498	1,327,626
Rate Base Before Deferred Taxes	4,066,592	37,718,640	2,319,521	1,118,962	377,599	857,274	46,458,588
Deferred Taxes	(708,608)	(6,572,513)	(404,179)	(194,980)	(65,797)	(149,381)	(8,095,458)
Net Rate Base	**$3,357,984**	**$31,146,127**	**$1,915,342**	**$923,982**	**$311,802**	**$707,893**	**$38,363,130**
Return	**$485,565**	**$4,503,730**	**$276,958**	**$133,608**	**$45,087**	**$102,361**	**$5,547,309**

1 Board allowed amounts have been allocated in the same proportions as the amounts contained in the Company's application.

Appendix IV

Allocation of revenue requirement

	Lifting	Transmission	Delivery	Toronto Airport	Dorval Airport	Mirabel Airport	Totals
Operating Expenses	$811,308	$9,659,468	$1,831,577	$339,028	$233,666	$199,973	$13,075,020[1]
Depreciation	153,395	1,504,773	88,273	40,300	20,544	28,715	1,836,000[1]
Return	485,565	4,503,730	276,958	133,608	45,087	102,361	5,547,309[1]
Income Taxes	309,985	2,875,190	176,811	85,295	28,783	65,348	3,541,412[1]
Surtax	9,944	92,236	5,672	2,736	923	2,096	113,607[2]
Total Revenue Requirement	**$1,770,197**	**$18,635,397**	**$2,379,291**	**$600,967**	**$329,003**	**$398,493**	**$24,113,348**
Cubic Metres	8 825 000		7 540 000	600 000	235 000	450 000	
Cubic Metre Kilometres (000)		1 608 668[3]					
Tariff Component (in Dollars)	$0.200589	$0.011584	$0.315556	$1.001612	$1.400013	$0.885540	

1 Allowed totals have been allocated in the same proportions as the amounts contained in the Company's application. Thus, all amounts are allocated in some part to each of the six cost centres with the exception that the oil loss and fuel and power cost components of total operating expenses are allocated entirely to transmission.

2 Surtax total has been allocated in the same proportions as income taxes.

3 Board computation based on the Company's revised throughput forecast.

Appendix V

Calculation of 13-month averages in respect of: Net transportation plant; Accumulated deferred income taxes; and Debt and equity capital

	Net Transportation Plant[1]	Accumulated Deferred Income Taxes[2]
January 1	$ 43,474,660	$7,874,310[1]
January 31	43,358,806	7,911,168
February 28	43,225,379	7,948,026
March 31	43,356,502	7,984,884
April 30	43,424,432	8,021,742
May 31	43,360,970	8,058,600
June 30	43,598,182	8,095,458
July 31	43,914,470	8,132,316
August 31	43,785,169	8,169,174
September 30	43,750,318	8,206,032
October 31	43,745,306	8,242,890
November 30	43,590,118	8,279,748
December 31	43,509,934	8,316,600
TOTAL	**$566,094,246**	**$105,240,948**
13-Month Average	**$43,545,711**	**$8,095,458**

1 Exhibit 12, response to question 49(b).

2 The current test year deferred income taxes of $442,290 were allocated evenly throughout the year.

Calculation of 13-month averages in respect of: Net transportation plant; Accumulated deferred income taxes; and Debt and equity capital

	Common Equity[1]	Long-Term Debt 3-Year	Long-Term Debt 10-Year
January 1	$20,081,251	$10,000,000	$10,000,000
January 31	20,496,251	10,000,000	10,000,000
February 28	20,896,751	10,000,000	10,000,000
March 31	19,703,251	10,000,000	10,000,000
April 30	19,973,251	10,000,000	10,000,000
May 31	20,199,951	10,000,000	9,500,000
June 30	20,018,651	10,000,000	9,500,000
July 31	20,115,351	10,000,000	9,500,000
August 31	20,366,551	10,000,000	9,500,000
September 30	19,830,651	10,000,000	9,500,000
October 31	20,088,251	10,000,000	9,500,000
November 30	20,365,751	10,000,000	9,000,000
December 31	20,185,939	10,000,000	9,000,000
TOTAL	**$262,321,851**	**$130,000,000**	**$125,000,000**
13-Month Average	**$20,178,604**	**$10,000,000**[2]	**$9,615,385**[2]

1 Per Exhibit 47.

2 Per Exhibit 9, response to question 38.